

**Patent claims**

1. A self-aligning antifriction bearing (1, 15, 22) comprising at least a first row (9) of rolling elements (11) and comprising a second row (10) of rolling elements (11) adjacent to the first row (9) of rolling elements (11), each of the rows (9, 10) having balls (5) and rollers (6) disposed peripherally about a center axis of the self-aligning antifriction bearing (1, 15, 22) and the balls (5) in this case having a smallest external diameter (28) which is greater than a largest external diameter (8) of the rollers (6); the self-aligning antifriction bearing (1, 15, 22) further comprising, respectively, an imaginary first rolling contact plane 23 of the balls (5) per row (9, 10), which plane is concentric to the center axis and runs centrally through the balls (5), and comprising, respectively, an imaginary second rolling contact plane (24) of the rollers (6) per row (9, 10), which plane is concentric to the center axis and intersects the rollers (6) at the largest external diameter (8), in each of the rows (9, 10) the first rolling contact plane (23) being axially distanced from the second rolling contact plane (24) along the bearing center axis.

2. The self-aligning antifriction bearing (1, 15, 22) as claimed in claim 1, in which the first rolling contact planes (23) from row (9, 10) to row (9, 10) lie axially closer together than the second rolling contact planes (24)

from row (9, 10) to row (9, 10), whereby the first rolling contact planes (23) are disposed axially between the second rolling contact planes (24).

3. The self-aligning antifriction bearing (1, 15, 22) as claimed in claim 1, comprising a first bearing load in which a first rolling circle (23a) per row, which encompasses the balls (5) at the external diameter (28) of the balls (5), is greater than a second rolling circle (24a) per row (9, 10), which encompasses the rollers (6) at the largest external diameter (8) of the rollers (6), and comprising a second bearing load in which the first rolling circle (23a) and the second rolling circle (24a) are equally large and at least the balls (5) are elastically inflexed at least radially, the second bearing load being greater than the first bearing load.

4. The self-aligning antifriction bearing (1, 15, 22) as claimed in claim 1 or 3, in which per row (9, 10), in the peripheral direction about the center axis, respectively one of the balls (5) is adjacent to one of the rollers (6).

5. The self-aligning antifriction bearing (1, 15, 22) as claimed in claim 3, in which the balls (5) have a smallest possible external diameter of the balls (28) and the rollers (6) have a largest possible external diameter (8) of the rollers (6) in each of the rows (9, 10), and in which, in each of the rows (9, 10), a largest distance (33) in the radian measure between two of the balls (5) which succeed

each other peripherally and which are here mutually separated peripherally by at least one of the rollers (6) is respectively sufficiently small that, in a vertex (35) of a load zone (36) resulting from a highest one of the first bearing load, between an inner raceway (13) of the self-aligning antifriction bearing (1, 15, 22) and an outer raceway (14) of the self-aligning antifriction bearing (1, 15, 22) a radial distance (34) remains which is greater than the largest external diameter (8) of the rollers (6), the rolling elements (11) being disposed radially between the raceways (13, 14).

6. The self-aligning antifriction bearing (1, 15, 22) as claimed in claim 1, 3 or 5, comprising a cage (4, 16), the first row (9) and the second row (10) being jointly guided in the cage (4, 16).

7. The self-aligning antifriction bearing (15, 22) as claimed in claim 1, 3 or 5, comprising a cage (16), the first row (9) and the second row (10) being jointly guided in the cage (16) and a ball (5) of the first row (9) respectively being adjoined by a roller (6) of the second row (10).

8. The self-aligning antifriction bearing (1) as claimed in claim 1, 3 or 5, comprising a cage (4), the first row (9) and the second row (10) being jointly guided in the cage (4) and a ball (5) of the first row (9) respectively being adjoined by a peripheral gap (12) in the second row (10) between a roller (6) and a ball (5).

9. A cage (4, 16) for at least one of the rows (9, 10) of the self-aligning antifriction bearing (1, 15, 22) as claimed in claim 1, which cage has ball pockets (19) with, respectively, a lateral opening (21), each of the openings (21) being configured on a side of the cage (4, 16) which is facing away from the other of the rows (9, 10), and a, in the tangential direction, free apertural measure (25) of the opening (21) being smaller than the external diameter (28) of the ball (5).

10. The cage as claimed in claim 9, having respectively a flange (26) on a radially outward facing rim (19c) of each of the ball pockets (19), the largest clear distance, at least between portions of the flange (26) which lie tangentially opposite one another in the peripheral direction and are in this case farthest removed from one another, being less than the external diameter (28) of the ball (5) in the pocket (19), plus a greatest possible motional play (30), free in the direction of the pocket (19), between the pocket (19) and the respective ball (5) radially beneath the flange (26), and the largest clear distance including a greatest possible free motional play (31) between the ball (5) and the flange (26).

11. The cage (4, 16) as claimed in claim 10, in which the rim (19c) of each of the ball pockets (19) is formed by the flange (26) extending as far as the opening (21).

12. The cage (4, 16) as claimed in claim 11, in which the flange (26) has an inner surface portion (26a) of a circular cylinder, the surface portion (26) facing the ball (5) in the pocket (19) and, peripherally, partially encompassing the ball (5) as far as the opening (21) and being described by a radius (27).

13. The cage as claimed in claim 12, the surface portion (26a) of which is bounded by two body edges, the body edges (39, 40) facing the ball (5) in the pocket (19) and partially encompassing the ball (5) as far as the opening (21), and the body edges (39, 40) at the opening (21), viewed transversely to the radius (27), being farthest distant from one another and, as the distance away from the opening (21) increases, viewed transversely to the radius (27), coming closer together.